

# Corteva AgriScience™ - leader in Express technology in sunflower

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**Corteva Agriscience™**  
Лидерът в ExpressSun™  
технологията при слънчогледа



Sunflower is one of the most important oilseed crops in the world due to its higher adaptability, the use of mechanization and consumer preferences for vegetable oil. In the countries of Europe (including Russia and Ukraine) more than 70% of the total global sunflower area is cultivated. The main objective for farmers is to increase the quantity and quality of the produced output. In recent decades, a significant increase in yields has been recorded. However, there are still factors that limit the realization of the high yield potential of the hybrids used in production.

Weeds are one of these factors. Weed competition can cause significant yield losses – from 20 to 70%. Together with soil tillage and crop rotation, the use of herbicides is a key method for weed control.

The traditional options for herbicides in sunflower during the vegetation period offer very limited control of broadleaf weeds and carry a significant risk of causing phytotoxicity to sunflower plants.

At the beginning of the 21st century, scientists from Corteva AgriScience™ developed their own source of tolerance to a herbicide from the sulfonylurea group, which started to be used for the breeding of the first registered commercial hybrids from Pioneer, introduced to the market in 2005. In addition, the ExpressSun® trademark has been officially registered in more than 30 countries in Europe and represents a revolution in supporting sunflower producers internationally. It is intended for the control of broadleaf weeds in sunflower, thereby increasing production and yield. ExpressSun® combines tolerant sunflower hybrids with the herbicide Express® 50 SG, in order to provide weed control (incl. of those for which there is no other solution) compared to conventional systems.

In 2020, the Express technology was the most widely grown in Bulgaria, with the largest area, amounting to almost 2/3 of the entire sunflower area.

Corteva is also the market leader in Express technology for another consecutive year in Bulgaria. In 2020, of the ten most widely grown Express-tolerant sunflower hybrids in Bulgaria, eight hybrids (P64LE25, P64HE118, P63LE113, P64LE136, P64HE133, P64LE99, P64LE137, P64LE121) were from Corteva AgriScience.

Corteva AgriScience™ has the largest portfolio of hybrids in the Express technology, meeting the highest requirements of farmers for yield potential, resistance/tolerance and quality parameters. For 2021, the company is offering farmers 9 high-yielding Express-tolerant hybrids, and Corteva AgriScience alone will have Express-tolerant high oleic sunflower hybrids (P64HE118, P64HE133, P64HE144) in its portfolio. P64LE25 is the most widely grown hybrid of all hybrids cultivated in the country and in the Express technology for another consecutive year.

Corteva AgriScience™ continues to work on the development and marketing of new, more productive sunflower hybrids with diverse characteristics. Meeting the increasing needs of farmers for high-quality seed is a main goal and task of the company, which every year introduces at least one new high-yielding sunflower hybrid in Bulgaria.

From a purely economic perspective, the costs for weed control in the ExpressSun® technology are lower compared to other technologies for the cultivation of technological sunflower.

The application window of the post-emergence herbicide in Express-tolerant hybrids is extremely wide, which provides flexibility of spraying according to the growth stage of the crop and the growth stage of the weeds.

Part of the Express technology is the only registered herbicide – Express® 50 SG, which delivers impeccable results against annual and perennial broadleaf weeds, including the most persistent in sunflower – field bindweed and creeping thistle. In 2021, Corteva will offer on the market the herbicide Express® 50 SG in a package with a free adjuvant Vivolt™ 90, which is a registered trademark of Corteva AgriScience™ and helps for more complete absorption of the herbicide and excellent effect on persistent weeds.

Corteva guarantees the successful performance of the Express technology only when Express® 50 SG is used.

To complement weed control in the Express technology, Corteva also offers on the Bulgarian market the highly selective post-emergence herbicide for sunflower against annual and perennial grass weeds – Shadow®.

### **In brief, what are the most important advantages of the ExpressSun® technology:**

- High and stable yield potential, including under drier and adverse conditions
- Stable and adaptable hybrids for all growing regions in the country
- Fast and uniform early development
- High oil and oleic acid content (above the required minimum standard)
- Economically and agronomically efficient technology
- Wide application window of the herbicide Express® 50 SG (which leads to a longer period for weed control)
- Technology that is gentle on the crop and does not lead to stress, growth suppression of the plants or phytotoxicity
- Possibility for corrective treatment with Express® 50 SG in case of secondary weed infestation
- No residual soil activity of the herbicide and no limitations for subsequent crops in the crop rotation.